State of Washington
2010
Low-Income Home Energy Assistance Program
Weatherization Waiver Request

The State of Washington Department of Commerce (Commerce) is petitioning the United States Department of Health and Human Services (HHS) to waive the maximum percentage limits placed on funds used for weatherization within the Low-Income Home Energy Assistance Program (LIHEAP). Authority to request a waiver appears in the July 6, 1982 Federal Register 47 FR 29472 Part 96 of Title 45 of the Code of Federal Regulations as amended, with final rules published May 1, 1995 in 60 FR 21322.

The statute provides that, after reviewing a grantee's waiver request and public comments, HHS may grant a waiver if it determines that:

1. The number of households in the grantee service population that will receive LIHEAP benefits during the fiscal year will be greater than the number that received benefits in the preceding year.

2. The aggregate amount of LIHEAP heating assistance, cooling assistance, and crisis assistance benefits that will be received during the fiscal year will not be less than the aggregate amount received in the preceding fiscal year.

3. Weatherization activities have demonstrated measurable savings in energy expenditures.

The State of Washington waiver request addresses and meets all three of these criteria.

PERCENT OF TOTAL ALLOCATION USED FOR WEATHERIZATION

45 CFR 96.83(c)(1)

Commerce is requesting a waiver to transfer up to 25% of available LIHEAP Energy Assistance Program funds to the Weatherization Assistance Program, a total of $8,384,421. Approval of this waiver request will increase Weatherization funding from 15% to 25%.

HHS approval of the full 25% brings all potential LIHEAP dollars to Washington State, providing an opportunity for agencies to enhance their programs and existing funding. Commerce is committed to maintaining the local option for use of transfer amounts.

COMPARISON OF HOUSEHOLDS SERVED AND BENEFITS RECEIVED

45 CFR 96.83(c)(2)(i)
45 CFR 96.83(c)(2)(ii)
45 CFR 96.83(c)(4)

FY 2009 LIHEAP Regular + Contingency Grant Award

Total Grant Award	$81.7 million
Energy Assistance	$67 million
Households Served	104,374 (actual)

FY 2010 LIHEAP Regular + Contingency Grant Award

Total Grant Award	$78.6 million
Energy Assistance	$62.7 million
Households Served	86,972 (to date)

Increasing the allocation from 15% of FY 2009 to 25% of FY 2010 will not result in a decrease in the number of households assisted; in fact 86,972 households have been served to date in FY 2010. The Energy Assistance Program has the ability to serve up to 115,831 households with current funding if the waiver is approved.

WEATHERIZATION MEASURES AND RESULTING SAVINGS

45 CFR 96.83(c)(2)(iii)
45 CFR 96.83(c)(5)

Home Energy Audit

To be considered a complete weatherized unit, all homes must receive a comprehensive, on-site, home energy audit prior to receiving weatherization services**.** Trained and qualified auditors conduct the audits. Auditors are certified as a Building Analyst 1 by the Building Performance Institute (BPI).

Commerce's "*house-as-a-system*" approach to comprehensive home energy audits consists of the following elements per home (as applicable):

- If available, review the household energy usage pattern from a 12-month billing history.
- Complete visual assessment of existing conditions and insulation levels – note any health and safety concerns.
- Note fuel types, condition and size of space and water heating equipment – designate primary and secondary heat sources.
- Measure the residence for the volume of the living space and square footage of the building envelope.
- Ask the occupant about building characteristics which may be helpful in developing a work plan (e.g. asking if there are any particularly drafty areas), and assess lifestyle considerations.

- Perform a fan-door test.
- Conduct pressure diagnostic tests of HVAC system and building zones.
- Perform combustion safety tests.
- Conduct client education, noting opportunities to provide low cost base load measures. Contractors provide consumer conservation education to all weatherization participants. Curriculum consists of an energy bill review, home energy tour, basic energy conservation tips, and development of a family energy-saving action plan.

Using this information as a basis, a scope of work is developed based on Commerce procedures governing Health and Safety, Air Sealing, Pressure Diagnostics, and Repairs as well as information collected using either a computerized energy audit (TREAT) or a DOE-approved Priority List of Weatherization Measures. Local agencies are required to review a weatherization-specific scope of work with all clients receiving weatherization services.

TREAT Computerized Energy Audit

TREAT (Targeted Residential Energy Analysis Tools) is the authorized energy audit tool used in the weatherization program. It is required for analysis of high-rise multi-family buildings (five or more stories) and may also be used for single-family houses and mobile homes.

Commerce expects local agencies to calculate and maintain current costs for materials, labor, and fuels to be used in the TREAT auditing process.

Local agencies are responsible for ensuring that all staff performing computerized energy audits acquire and maintain proficiency using TREAT. Commerce provides introductory and advanced TREAT training through the Building Performance Center, Washington's training and technical assistance provider.

Priority List of Weatherization Measures

Commerce created the Priority List of Weatherization Measures using the computerized energy audit on single-family buildings, including a variety of building characteristics and configurations, fuel types, and various climactic regions of the state. The Priority List reflects those measures for which an average savings-to-investment ratio (SIR) of greater than 1.0 was established.

Measures not included in the matrix must be justified by the TREAT audit, which result in a SIR of 1.0 or greater, or through special authorization by Commerce. The most cost-effective measures as determined by TREAT or the matrix shall ordinarily be installed. Any deviation from this measure selection process must have written justification documented in the client file.

Air Sealing and Pressure Work

Applicable cost-effective air sealing is a high-priority service. TREAT can be used to determine air infiltration reduction cost benefits and is used in conjunction with Commerce Blower Door and Air Sealing Procedures and the Duct Pressure Test Procedures.

Cost Effectiveness of Weatherization in Washington

Washington State University completed an evaluation of the Washington State Weatherization Assistance Program in 2008. Oak Ridge National Laboratory conducted the previous evaluation of Washington's program in 2001, which placed Washington "in the top one-third nationwide in terms of program-induced energy savings compared to the savings achieved by other states." The purpose of the 2008 evaluation was "to identify and document the benefits provided by the Weatherization Program and to give feedback to the Housing Division and local agencies for improving the quality and effectiveness of program services." It also aimed to lay the groundwork for "a regular and consistent evaluation process for the Weatherization Program."

The evaluation used a combination of information from Washington's program and the results from other evaluations of low-income weatherization programs throughout the country to develop estimates of program benefits. Program costs were estimated from data on weatherization measure costs from the ten largest weatherization agencies, and administration and program operations costs (excluding measure costs) from Washington's Housing Division.

Table 1. Benefits and Costs for Washington's Low-Income Weatherization Program

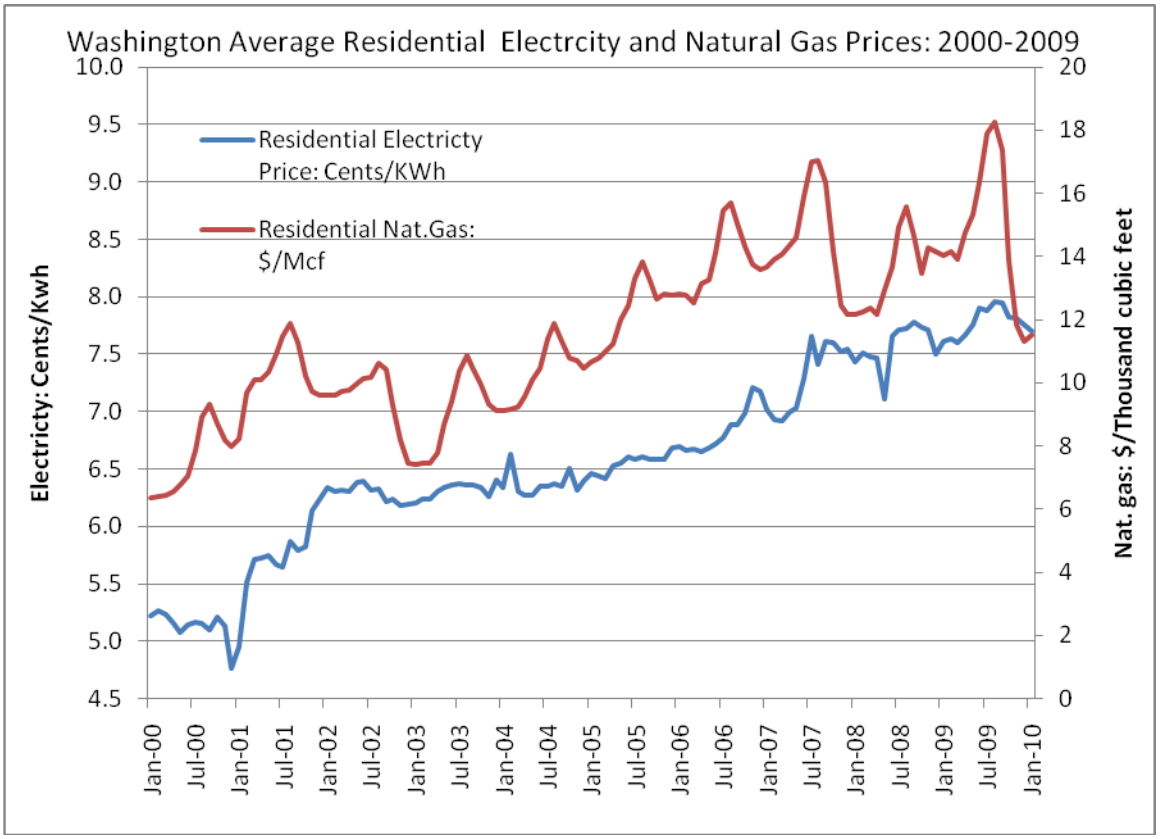
	Benefit Range ($/unit)	Mid-Point ($/unit)
Energy Benefits	1,600 - 3,000	2,200
Household Benefits	700 - 3,700	900
Economic Benefits	1,900 - 2,800	2,500
Environmental Benefits	900 -1,500	1,300
Utility Benefits	75 - 300	100
Total Benefits	5,100 - 11,300	7,000
Total Costs	5,900 - 6,800	5,900 - 6,800
Benefit-Cost Ratio	0.75 - 1.91	1.0 - 1.2

Table 1 shows the ranges of estimated benefits and costs. The results show the program delivers significant benefits in addition to energy savings. The benefit-cost ratio is likely greater than one (the mid-point estimate is 1.0 to 1.2). This suggests that program benefits exceed costs for Washington's Low-Income Weatherization Program.

It is important to recognize that the Weatherization Program should not be judged solely by these numbers. The program delivers benefits that are not easily quantified. In addition to energy savings, evaluation results show the program delivers other significant benefits; "The program also supports broader social goals by preserving affordable housing, reducing the need for homelessness support services and energy assistance, improving the local economy by providing jobs to implement the weatherization improvements, decreasing greenhouse gases and the other environmental impacts of electric power generation, and reducing the need for new electricity generation facilities." The program also leverages funding from non-federal and non-state sources. Because local agencies receive small amounts of funding for housing improvements from sources outside of the Weatherization Program, there are also costs that are not included in this analysis.

A new evaluation capturing data between 2007 and 2010 is underway and is expected to be completed by October 2010.

OTHER FACTORS SUPPORTING THE WAIVER REQUEST

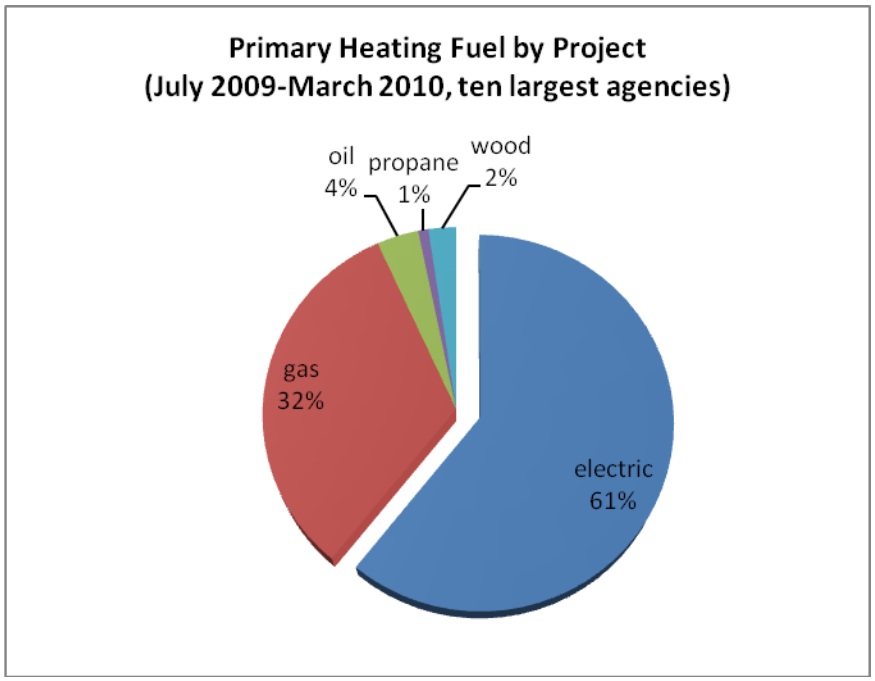


According to staff in the Washington State Department of Commerce Energy Policy Division, and as illustrated in the graph above, fuel cost increases have been tempered during the past two years by the economic slowdown and national changes in the natural gas market; this will result in a mix of results at the retail level. Retail electric rates will be climbing about 5 percent. Retail natural gas rates have declined and are expected to stay low compared to recent prices.

Natural gas prices have trended downward in response to the gas surplus created by the economic slowdown and new domestic gas resource discoveries. This was captured in natural gas rate adjustments that occurred in 2009. Several utilities have recently made small upward gas rate adjustments that indicate the price has now stabilized.

Retail electric rates will be rising in the next year. Public utilities that are served by the Bonneville Power Administration (BPA) will be implementing rate increases in the next year in response to higher wholesale power prices from the Federal agency. BPA power prices are scheduled to rise by 5 percent. This rate increase will be transferred to end use consumers. Low natural gas prices may also contribute to higher retail electric rates. Many utilities in the state sell surplus hydro power to markets outside the state. Low natural gas prices have resulted in

lower prices for surplus hydro power. This will require the hydro utilities to compensate for lost wholesale revenue, some of which will result in higher rates for their retail consumers.



The above graph was generated with data from the "Washington State Weatherization Program Report DRAFT, July 2009-March 2010." The numbers reflect the percentage of each heating fuel source (wood, propane, oil, gas, and electric) used in projects weatherized between July 2009 and March 2010. Weatherized projects in this short time period were predominantly electricly heated. This number would be significantly larger if data tracked heating source per unit rather than project due to the number of mutli-family units per project.

Table 3 The Variation and Distribution of FY 2008 Energy Bills and Burdens By Income Group						
		Average	Median	25th Percentile	75th Percentile	95th Percentile
Not LIHEAP elig.	Est FY 08 En. Burden	4%	4%	2%	5%	9%
	Est Res'l energy Bills FY 08	$2,356	$2,123	$1,499	$2,943	$4,698
	Est Heat Bills FY 2008	$1,007	$856	$512	$1,301	$2,355
LIHEAP elig.	Est FY 08 En. Burden	17%	11%	7%	18%	54%
	Est Res'l energy Bills FY 08	$1,864	$1,648	$1,068	$2,443	$3,867
	Est Heat Bills FY 2008	$817	$645	$360	$1,090	$2,101
U.S. ALL	Est FY 08 En. Burden	8%	5%	3%	8%	25%
	Est Res'l energy Bills FY 08	$2,201	$1,978	$1,335	$2,786	$4,481
	Est Heat Bills FY 2008	$947	$791	$462	$1,241	$2,267

The report "The Burden of FY 2008 Residential Energy Bills on Low-Income Consumers", published by Economic Opportunity Studies, states the national average estimated FY 2008 energy burden for LIHEAP eligible households is 17%, compared to the 4% energy burden of households not eligible for LIHEAP assistance (Table 3, page 6). In addition, the report states that "efficiency investments" are among the most common "tools other than direct payment assistance [that] can contribute to relieving energy burden."

Table II-3
Low-Income Energy Burden

Poverty Group	Energy Burden > 5%		Energy Burden >10%	
	# of Households	% of Households	# of Households	% of Households
≤125%	251,636	72%	158,004	46%
126% - 150%	51,371	52%	14,705	15%

In its 2007 "Washington State Energy Needs Final Report", Applied Public Policy Research Institute for Study and Evaluation (APPRISE) reported that Roger Colton of Fisher, Sheehan, and Colton suggested using 6% of income as the standard for affordable energy burden after researching national shelter costs and energy bills. APPRISE used similar research to define high energy burden as 11% of income.

According to the report, 14% of households in Washington have an income below 125% of the federal poverty level. As shown in Table ll-3, 72% of this population has an energy burden greater than 5%, with 46% of these households spending more than 10% of their income on energy bills. Given Roger Colton's standard for affordable energy burden at 6% of income, 72%

of Washington's most vulnerable households are extremely close to or surpass the ability to afford their energy bills.

APPRISE concludes their report by recommending strategies for meeting the needs of low-income households in Washington; among these strategies is continued supplementation of WAP/LIHEAP energy efficiency funding with matching funds from local utility companies. They also recommend coordinating bill payment assistance programs with energy efficiency programs.

Commerce anticipates completion of Recovery Act production by July 1, 2011. As of May 31, 2010, 30% of weatherization agencies have expended at least 50% of their allocated Recovery Act funds. These statistics are important given the following:

- Recovery Act production has accounted for over 60% of low-income weatherization production in Washington State since September 2009. If supplemental funding is not secured prior to July 1, 2011, weatherization production in Washington State will decrease significantly.
- Recovery Act funding supported nearly 200 weatherization full-time equivalent (FTE) employees between January and March 2010 alone. Agencies cannot maintain these funded positions if supplemental funding is not secured.
- The Washington State legislature has historically allocated capital funds for weatherization through the Energy Matchmakers Program. Energy Matchmakers funding has been dramatically reduced over the last 3 biennia: $12 million allocated for 2005-2007, $9 million for 2007-2009, and the largest reduction for 2009-2011 - $9 million for the new Matchmakers Program that provides funds for both weatherization (formerly Energy Matchmakers) and housing rehabilitation and repair; approximately $6 million is allocated for weatherization).

WAIVER REQUEST

The State of Washington Department of Commerce requests a Standard Waiver from the United States Department of Health and Human Services to allow an additional 10% to exceed the 15% maximum transfer allowable for weatherization. Approval of the Waiver will allow Washington State to allocate 25% of its LIHEAP funds for weatherizing the homes of its most vulnerable households.